Influenza, 2003-2004 Season

Surveillance
Each year, Utah participates in the U.S. Influenza Sentinel Provider Surveillance Network, a collaborative effort between CDC, state and local health departments, and health care providers. This collaborative effort has grown significantly since it began several years ago. This year's sentinel surveillance data collection began on September 29.

Influenza is a reportable disease in Utah. For surveillance purposes, reports are categorized either as laboratory confirmed influenza or influenza-like illness (reportable by number of cases only).

Over human history, influenza has periodically emerged in a new and more virulent form, causing a pandemic. The best-known instance was the 1918 pandemic, which caused 550, 000 deaths in the United States and 30 million worldwide. In the past year we have witnessed several pandemic "scares", including the global SARS epidemic and outbreaks of avian influenza in Hong Kong (H5N1) and the Netherlands (H7N7). These scares have clearly indicated the need to strengthen influenza surveillance. Strategies for strengthening influenza surveillance include:

- Expanding sentinel surveillance to year round
- Shifting surveillance activities to the local level
- Increasing the number of regularly reporting sentinel providers.

Laboratory testing for influenza and other respiratory viruses will be provided at the Utah Department of Health Laboratory. Supplies for collecting and transporting specimens will be provided to sentinel sites for testing a limited number of patients while giving priority to patients who have recently traveled outside of the U.S. or are employed as a healthcare worker.

Tracking school absenteeism is another important component of influenza surveillance. Each year, the Utah Department of Health collaborates with many individual schools, school districts and local health departments to monitor absenteeism during the influenza season. Increases in school absenteeism were the first indication of influenza activity in some rural areas during the 2002-03 season (figure 1). School absenteeism surveillance will begin this October and end in May 2004.

The system for describing influenza activity at the state level has been revised. The State and Territorial Epidemiologist's Report is the only state level influenza data that CDC makes publicly available and these data are widely used by the media, the public, and public health officials. All 50 states, New York City, and

Washington DC, report the level of influenza activity for their state/city to CDC each week. The new activity level definitions are:

- **No Activity:** overall clinical activity remains low and there are no lab confirmed cases.
- **Sporadic:**
  - Isolated cases of lab confirmed influenza in the state; influenza-like illness activity is not increased. **OR**
  - A lab confirmed outbreak in a single institution in the state; influenza-like illness activity in other regions is not increased.
- **Local Outbreak:**
  - Increased influenza-like illness activity within a single region AND recent (within the past 3 weeks) laboratory evidence of influenza in that region. Influenza-like illness activity in other regions is not increased. OR
  - Two or more institutional outbreaks (influenza-like illness or lab confirmed) within a single region AND recent (within the past 3 weeks) lab confirmed influenza in that region. Other regions do not have increased influenza-like illness and virus activity is no greater than sporadic in those regions.
- **Regional:**
  - Increased influenza-like illness in $\geq$ 2 but less than half of the regions AND recent (within the past 3 weeks) lab confirmed influenza in the affected regions. **OR**
  - Institutional outbreaks (influenza-like illness or lab confirmed) in $\geq$ 2 and less than half of the regions AND recent lab confirmed influenza in the affected regions.
- **Widespread:** Increased influenza-like illness and/or institutional outbreaks (ILI or lab confirmed) in at least half of the regions AND recent (within the past 3 weeks) lab confirmed influenza in the state.
- **No Report**

See Figure 1 for results of 2003-2004 surveillance data. Influenza information and weekly surveillance can be found at:
http://health.utah.gov/els/epidemiology/commdisease/influenza/results_0203.htm

Recommendations for use of Influenza Vaccine

While influenza activity in the United States usually starts in November or December, influenza cases and isolated outbreaks can occur at any time of the year. Cases of influenza A have already been reported in Texas and 9 other states. At CDC, preliminary analysis has shown that some of the influenza A cases in Texas were due to an H3N2 strain slightly different than the one contained in the 2003-2004 vaccine. While vaccine protection against this different strain may be lower, the vaccine is expected to provide some degree of effectiveness.

The early influenza activity in Texas serves as a reminder of the need for timely vaccination. There is no shortage of vaccine for this season, so all high-risk and healthy persons can be vaccinated beginning this October.

Influenza vaccine is strongly recommended for any person aged ≥ 6 months who is at increased risk for complications from influenza. In addition, health-care workers and other persons (including household members) in close contact with persons at high risk should be vaccinated to decrease the risk for transmitting influenza to persons at high risk. The high-risk groups are:

- Persons aged 65 years
- Adults and children who have chronic disorders of the pulmonary or cardiovascular systems, including asthma
- Adults and children who have required regular medical follow-up or hospitalization during the preceding year because of chronic metabolic diseases (including diabetes mellitus), renal dysfunction, hemoglobinopathies, or immunosuppression (including immunosuppression caused by medications or by human immunodeficiency virus)
- Children and teenagers (aged 6 months to 18 years) who are receiving long-term aspirin therapy and therefore might be at risk for developing Reye syndrome after influenza infection
- Women who will be in the second or third trimester of pregnancy during the influenza season.
- Influenza vaccine is also recommended for persons aged 50-64 years due to increased prevalence of high-risk conditions among persons over the age 50.

For the 2003-04 influenza season, influenza vaccination is strongly encouraged, when feasible, for children 6 to 23 months of age and their household contacts and out-of-home caregivers because young children are at increased risk of influenza-related hospitalization. For 2004-05, influenza vaccination will be recommended for these groups for the first time.

The Food and Drug Administration has recently approved a new live attenuated vaccine in the form of a nasal spray. This vaccine will be available for use in healthy persons between 5 and 49 years of age.

To report a case of influenza or for more information on influenza surveillance, contact the Office of Epidemiology at: 1-888-EPI-UTAH.

For more information on influenza vaccine, contact the Utah Immunization Hotline at:
1-800-275-0659.

Figure 1: Influenza surveillance 2002-2003 season